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APPENDICES

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TABLES

1994 ADDENDUM

NOTE: Please refer to the 1993 Units Report Section "1.0 INTRODUCTION" for additional pertinent information about the WIDS system.

1.0 INTRODUCTION

The Hanford Site Waste Management Units Report (hereafter referred to simply as the "Units Report") was originated to provide information responsive to Section 3004(u) of the Hazardous and Solid Waste Amendments of 1984. The Units Report provides a comprehensive inventory of all types of waste management units at the Hanford Site, including a description of the units and the waste they contain. Waste management units in the report include: 1) Resource Conservation and Recovery Act of 1976 (RCRA) disposal units, 2) Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) disposal units, 3) unplanned releases, 4) inactive contaminated structures, 5) RCRA treatment, storage, and disposal (T/S/D) units, and 6) other storage areas. Because of the comprehensive nature of the Units Report, the list of units is more extensive than required by Section 3004(u) of Hazardous and Solid Waste Amendments of 1984.

The information in this report is extracted from the Waste Information Data System (WIDS). The WIDS provides additional information concerning the waste management units contained in this report and is maintained current with changes to these waste management units. This report is updated annually if determined necessary per the Hanford Federal Facility Agreement and Consent Order (commonly known as the Tri-Party Agreement).

By agreement with the EPA, DOE, and Ecology Project Managers, the requirement for this year is an Addendum. This Addendum presents 1) an update in the total number of units, 2) a description of revisions/corrections to information on existing units, and 3) data sheets for added units since the 1993 Units Report. Data sheets for the other units are presented in the 1993 Units Report.

1.1 TOTAL NUMBER OF WASTE MANAGEMENT UNITS

This Addendum and the 1993 Units Report identify 1,514 waste management units. Of these, 1,086 units are identified as solid waste management units (SWMU's) as defined by RCRA, 348 of these are RCRA T/S/D units. The remaining 428 waste management units are comprised mainly of one-time spills to the environment, sanitary waste disposal facilities (i.e. septic tanks), and facilities managed by the Surplus Facilities Management Program prior to decontamination and decommissioning.

The RCRA T/S/D waste management units are designated with their assigned T/S/D group number (e.g., T-2-1) from Appendix B of the Tri-Party Agreement. Since all T/S/D waste management units are SWMU's, the T/S/D group number also indicates the SWMU standing.

Inactive waste management units should not be interpreted as "closed" by the definitions of RCRA. Inactive waste management units do not currently receive waste, nor are they intended to receive wastes in the near future. Active waste management units are in operation and will receive wastes in the future ("standby" is considered active). Single-shell tanks are inactive waste management units but are defined active storage waste management units under RCRA and therefore are not closed by the definitions of RCRA.

The waste management units at the Hanford Site are grouped into four aggregate areas that reflect the Hanford Site listing on the National Priorities Listing (NPL). These aggregate areas are further divided into operable units containing individual waste management units that share similar characteristics and are located within the same general geographical area.

The four aggregate areas are subdivided into their operable units. The operable units are further divided into two parts: 1) those waste management units assigned to the operable unit that will be remediated as part of the Environmental Restoration Remedial Actions Program (ERRA), and 2) those waste management units located within the operable unit boundaries but not assigned to the ERRA program. Only some operable unit sections contain the second part. The non-ERRA program waste management units are included in this report for reference and are currently planned to be addressed separately under other programs. A break-down of waste management units by program is presented in Table (a).

Table (a). Waste Management Units by Program.

ERRA Program		Other Units		Total
RCRA T/S/D	3004(u) Past Prac. (RCRA/CERCLA)	Surplus Facilities & Misc. Units	RCRA T/S/D (Non-ERRA)	Units
224	1,041	125	124	1,514
(224 SWMU)	(652 SWMU)	(86 SWMU)	(124 SWMU)	1,086

1.1.1 Environmental Restoration Remedial Actions Program

Of the 1,514 waste management units, 1,265 are assigned to 71 operable units for subsequent investigation and remediation under the ERRA Program. These include 224 RCRA T/S/D units. Schedules for corrective actions on the operable units are prioritized in the Action Plan of the Tri-Party Agreement. Investigation and remediation of these operable units will be in accordance with Work Plans approved by the Environmental Protection Agency, Region X, and the State Department of Ecology. As additional waste management units are identified in the investigation of the operable units, they will be added to the WIDS.

1.1.2 Other Waste Management Units

Of the 1,514 waste management units, more than 200 are other waste management units located within operable unit boundaries but not assigned to that operable unit. These include structures such as reactors and their ancillary facilities which will be decontaminated and decommissioned as part of the Hanford Surplus Facilities Management Program. These facilities are managed under the Atomic Energy Act of 1954. These waste management units are included in this report because they are considered potential sources of contamination within the operable unit. Corrective actions, such as closure under RCRA or expedited responses actions, and the waste contents of these other waste management units, must be considered in the planning and execution of investigation and remediation activities on the operable units.

Appendix B of the 1993 Units Report provides information on unplanned releases. These unplanned releases are not considered separate waste management units but release into an existing waste management units (e.g. a spill from a truck within the existing boundaries of a burial ground) or releases resulting in soil contamination from a waste management units within the same operable unit (e.g. a leak from a single-shell tank). When a waste management unit has an associated unplanned release, it is cross-referenced to the related waste management units in the "known releases" paragraph.

1.1.3 Criteria used in Development of the Addendum

The criteria used to develop the 1993 Addendum is the following:

1. Only documented evidence of a unit or incident is used as the basis for inclusion in the report.

2. Waste management units identified as "assigned to an operable unit" versus those designated "within an operable unit area" are assigned in Appendix C of the Tri-Party Agreement.

3. Unplanned releases from or to waste management units, as well as significant unplanned releases that in themselves create a waste management unit, are included in this report. Because the term "significant" is not defined, a minimum limit for including unplanned release information in the report is se at CERCLA reportable quantities for those chemicals defined in 40 CFR 302.4, Table 302.4.

4. Tanks or container storage areas within a building are not included in the report unless a known release to the environmental has occurred from them or they are designated as a RCRA T/S/D waste management unit. All known tanks or container storage areas outside of building are included in the report.

5. Waste management units that have received only rainwater runoff are not included in the report. Steam condensate waste management units are included in the report.

6. Air releases are included in the report if they have created documented surface contamination.

7. Unplanned releases that did not reach the environment (e.g., spills within a building that did not go to a sewer via a building drain) are not included in the report.

1.2 REVISIONS/CORRECTIONS

The revisions and corrections of existing units were either programmatic or a result of minor corrections. No significant changes on the location, designation, dimensions, waste specification, or release information have been reported to the WIDS since the 1993 Units Report.

- The unit representing an incorrect unit name was deleted, and the unit representing the correct unit name was added (see Section 1.3.1).
- Boundaries of operable units were modified, affecting all waste management units included in those operable units (see Section 1.3.2).
- An existing waste management unit was split into two separate new units, and the original unit was deleted (see Section 1.3.3).

1.2.1 Unit Name Changes

An incorrect site name for a septic system was discovered and corrected. The incorrect site name was deleted and the correct name was added to the WIDS database:

- 2607-EL (incorrect name deleted from WIDS)
- 2607-EE (correct name added to WIDS)

1.2.2 Operable Unit Boundary Changes

During the past year, the boundaries of the following operable units were modified. The affected waste sites are already included in the 1993 full update of the Units Report. Therefore, to avoid confusion they are not printed a second time in this Addendum. Please refer to the 1993 Units Report for the individual listing of the affected sites, keeping in mind the new operable unit designation.

- Operable Unit 200-BP-5 has been redefined as a groundwater operable unit. All non-groundwater waste sites formerly in operable unit 200-BP-5 are now in 200-BP-6. This applies to the following waste sites:

  216-B-5,
  216-B-9,
  216-B-56,
  216-B-59,
  216-B-59B,
  241-B-154,
  241-B-302B,

241-B-361,
UPR-200-E-7, and
UPR-200-E-45.

- Operable Unit 200-PO-1 has been redefined as a groundwater operable unit. All non-groundwater waste sites formerly in operable unit 200-PO-1 are now in 200-PO-2. This applies to the following waste sites:

216-A-3,
216-A-9,
216-A-11,
216-A-12,
216-A-13,
216-A-14,
216-A-22,
216-A-26,
216-A-26A,
216-A-28,
216-A-32,
216-A-33,
216-A-35,
216-A-40,
216-A-41,
218-E-1,
218-E-13,
241-A-151,
241-A-302A,
2607-E6,
2607-EA,
2607-EE (See data sheet in Section 1.5 of this Addendum),
UPR-200-E-10,
UPR-200-E-11,
UPR-200-E-12,
UPR-200-E-15,
UPR-200-E-19,
UPR-200-E-20,
UPR-200-E-26,
UPR-200-E-28,
UPR-200-E-31,
UPR-200-E-33,
UPR-200-E-42,
UPR-200-E-49,
UPR-200-E-58,
UPR-200-E-60,
UPR-200-E-65,
UPR-200-E-88,
UPR-200-E-96,
UPR-200-E-114,
UPR-200-E-142, and
UPR-200-E-143.

- Operable Unit 200-ZP-1 has been redefined as a groundwater operable unit. All non-groundwater waste sites formerly in operable unit 200-ZP-1 are now in 200-ZP-2. This applies to the following waste sites:

  216-Z-1,
  216-Z-1A,
  216-Z-2,
  216-Z-3,
  216-Z-12,
  216-Z-13,
  216-Z-14,
  216-Z-15,
  216-Z-18,
  241-Z-361,
  2607-Z,
  UPR-200-W-23,
  UPR-200-W-74,
  UPR-200-W-75,
  UPR-200-W-89,
  UPR-200-W-90,
  UPR-200-W-91,
  UPR-200-W-103, and
  UPR-200-W-159.

- As a result of the large-scale remediation approach for the 100-BC area, all waste sites formerly in operable units 100-BC-3 and 100-BC-4 are now in 100-BC-2. This applies to the following waste sites:

  118-B-1,
  118-B-2,
  118-B-3,
  118-B-4,
  118-B-6,
  118-C-1, and
  1607-B9.

1.2.3 Changes to description of units

The 1994 Addendum includes the following changes in unit description:

- The 207-A Retention Basin was split into two separate units, due to a TSD designation that only applies to half the site.

- The old site name "207-A Retention Basin" was deleted, and two new site names were added for the north and south segments of the original site:
  207-A-North and
  207-A-South.

Except for these changes, the descriptions of existing units in the Units Report remain the same.

1.3 ADDED WASTE MANAGEMENT UNITS

A summary of added units and other waste sites is presented in Table (b). A data sheet for each added unit is presented in Section 1.6.

Nearly all of the added units are the result of preparing an accurate list of SWMU's for the completion of the Hanford Facility RCRA Permit. In accordance with 40 CFR 270.14, known SWMU's must be identified for the Permit. This Addendum, in conjunction with the 1993 Units Report, satisfies this requirement.

Ecology and EPA notification of newly identified and discovered SWMU's will continue in the manner as specified in the planned Part B Permit Application.

Table (b). Added Waste Management Units.

Unit	Alias	SWMU	Unit Type	Designation	Area	Operable Unit
141-C	141-C Animal Barn, Large Animal Barn & Biology Laboratory	Yes	Building	Low-Level Waste	100F	100-FR-1
141-F	141-F Sheep Barn, 132-F-1 Chronic Feeding Barn	Yes	Building	Low-Level Waste	100F	100-FR-1
144-F	144-FB, 132-F-2 Inhalation Laboratory	Yes	Building	Low-Level Waste	100F	100-FR-1
182-F	182-F Reservoir	Yes	Demolition and Inert Landfill	Nonhazardous/ Nonradioactive	100F	100-FR-1
200-W-5	Burial Ground/Burning Pit	Yes	Burial Ground	Low-Level Waste	200W	200-UP-2
2025-E	242-A Evaporator/PUREX Condensate Treatment Facility, ETF	Yes	Test Treatment or Support Facility	Mixed Waste	200E	200-BP-11
207-A-NORTH	207-A, 207-A Retention Basin, 207-A-NORTH Retention Basin	Yes	Retention Basin	Nonhazardous/ Nonradioactive	200E	200-PO-5
207-A-SOUTH	207-A, 207-A Retention Basin, 207-A-SOUTH Retention Basin	Yes	Retention Basin	Hazardous Waste	200E	200-PO-5
213-W	213-W Compactor Facility	Yes	Test Treatment or Support Facility	Low-Level Waste	200W	200-ZP-3
213-W-TK-1	213-W Compactor Facility Retention Tank	Yes	Storage Tank	Not Assigned	200W	200-ZP-3
219-S-TK-101	TK-101 Crib Waste Receiver	Yes	Storage Tank	Mixed Waste	200W	200-RO-3
241-C-154	241-C-154 Diversion Box	Yes	Diversion Box	Mixed Waste	200E	200-SO-1

241-SX-A	241-SX-A Diversion Box	Yes	Valve Pit	Mixed Waste	200W	200-RO-4
241-SX-B	241-SX-B Diversion Box	Yes	Valve Pit	Mixed Waste	200W	200-RO-4
241-TX-302BR	241-TX-302BR Catch Tank	Yes	Catch Tank	Mixed Waste	200W	200-TP-2
241-TX-302X	241-TX-302XB Catch Tank, 241-TX-302-X	Yes	Catch Tank	Mixed Waste	200W	200-TP-5
241-TXR-151	241-TXR-151 Diversion Box	Yes	Diversion Box	Mixed Waste	200W	200-TP-5
244-TXR	244-TXR Vault (Tanks TXR-001, -002, -003)	Yes	Receiving Vault	Mixed Waste	200W	200-TP-5
2607-E10		No	Septic Tank	Nonhazardous/ Nonradioactive	200E	200-PO-3
2607-E11		No	Septic Tank	Nonhazardous/ Nonradioactive	200E	200-SS-1
2607-E12	2607-E12 Septic System	No	Septic Tank	Nonhazardous/ Nonradioactive	200E	200-PO-5
2607-EE	2607-EL	No	Septic Tank	Nonhazardous/ Nonradioactive	200E	200-PO-2
2607-WC	2607-WC Septic System	No	Septic Tank	Nonhazardous/ Nonradioactive	200W	200-UP-2
2607-WL	2607-WL Septic System	No	Septic Tank	Nonhazardous/ Nonradioactive	200W	200-ZP-3
270-W	270-W Tank, 270-W Neutralization Tank	Yes	Neutralization Tank	Mixed Waste	200W	200-UP-2
309-WS-1	Reactor Ion Exchange Pit, PRTR Ion Exchange Vault	Yes	Equipment	Mixed Waste	300	300-FF-3
309-WS-2	Rupture Loop Ion Exchange Pit, Ion Exchange Vault	Yes	Equipment	Mixed Waste	300	300-FF-3
616-WS-1	616 NDWSF French Drain	No	French Drain	Nonhazardous/ Nonradioactive	600	200-IU-5
6607-5		No	Septic Tank	Nonhazardous/ Nonradioactive	600	200-IU-5

NOTES:

(1) An existing unit, 207-A, was split into two units. The original 207-A unit has been deleted from WIDS.

(2) The 2607-EE addition is actually a name correction, the 2607-EL unit has been deleted from WIDS.

1.5 REFERENCES

Ecology, EPA, DOE, 1989 *et seq*, *Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U.S. Environmental Protection Agency, U.S. Department of Energy, Olympia, Washington.

WHC, 1991, *WIDS Database Field Descriptions and Data*, WHC-MR-0056, Rev. 1, Westinghouse Hanford Company, Richland, Washington.

1.6 NEW WASTE SITES

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2.0 CROSS REFERENCE OF SITE NAME TO ITS OPERABLE UNIT, IN SITE NAME ORDER

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OPERABLE UNIT	SITE NAME
100-FR-1	141-C
100-FR-1	141-F
100-FR-1	144-F
100-FR-1	182-F
200-UP-2	200-W-5
200-BP-11	2025-E
200-PO-5	207-A-NORTH
200-PO-5	207-A-SOUTH
200-ZP-3	213-W
200-ZP-3	213-W-TK-1
200-RO-3	219-S-TK-101
200-SO-1	241-C-154
200-RO-4	241-SX-A
200-RO-4	241-SX-B
200-TP-2	241-TX-302BR
200-TP-5	241-TX-302X
200-TP-5	241-TXR-151
200-TP-5	244-TXR
200-PO-3	2607-E10
200-SS-1	2607-E11
200-PO-5	2607-E12
200-PO-2	2607-EE
200-UP-2	270-W
200-UP-2	2607-WC
200-ZP-3	2607-WL
300-FF-3	309-WS-1
300-FF-3	309-WS-2
200-IU-5	616-WS-1
200-IU-5	6607-5

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3.0 100 AGGREGATE AREA OPERABLE UNITS

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100-FR-1

Waste Units Assigned to this Operable Unit

141-C	Building
141-F	Building
144-F	Building

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UNIT NAME: 141-C
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

OPERABLE UNIT: 100-FR-1
SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1945
END DATE: 1976

COORDINATES: N79946,W29438

WASTE TYPES AND AMOUNTS: Wash down may have included the radionuclides used in the animal studies, I-131, Sr-90, Cs-137, and Pu-239. A portion of the radiobiological experiments carried out at 100-F Area involved the use of large animals. The 141-C Building provided facilities for the long-term housing and care of these animals. The building was a single L-shaped structure with each wing measuring 116 ft by 20 ft wide by 8 ft high. It was a Butler-type building of all-steel construction and was set on a concrete pad. The animal stalls were of steel construction and each was equipped with feeding and watering facilities. A common drainage trench served all of the stalls.

SITE DESCRIPTION: The unit consisted of a metal and concrete structure used for feeding & housing large animals. A site inspection on 12/29/93 revealed little evidence of the 141-C Building. The site is located on a flat area vegetated with rabbitbrush and cheatgrass in rocky soil. A steel post remains just east of where the building was located.

CLEANUP ACTIONS: The building, concrete floor, foundation, footings, and contaminated soil adjacent to and under the foundation were removed and transported to the 200 Area Burial Ground. As part of a comprehensive compliance demonstation program, 50 soil samples were taken after demolition was completed. Compliance with the applicable unrestricted release criteria in AEC Regulatory Guide 1.86 was demonstrated.

OPERABLE UNIT: 100-FR-1
SWMU: Yes
UNIT STATUS: Inactive

UNIT NAME: 141-F
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

COORDINATES: N80050/W29280, N80050/W29320, N80200/W29320, N80200/W29280

WASTE TYPES AND AMOUNTS: I-131, Sr-90, Cs-137 and Pu-239 were routinely washed down into sewer system.

SITE DESCRIPTION: Demolished concrete and metal building buried in place.

OPERABLE UNIT: 100-FR-1
SWMU: Yes
UNIT STATUS: Inactive

UNIT NAME: 144-F
UNIT TYPE: Building
WASTE CATEGORY: Low-Level Waste

COORDINATES: N79975/W29320

WASTE TYPES AND AMOUNTS: Pu-239 was used for performing particulate exposure experiments.

SITE DESCRIPTION: Demolished concrete and metal building buried in place sometime after 1980.

100-FR-1

Other Waste Units Located Within the Operable Unit Area

182-F Demolition and Inert Landfill

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UNIT NAME: 182-F
UNIT TYPE: Demolition and Inert Landfill
WASTE CATEGORY: Nonhazardous/Nonradioactive

OPERABLE UNIT: 100-FR-1
SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1977
END DATE: 1977

COORDINATES: N81400/W31160, N81400/W30640, N80960/W30640, N80930/W31160

WASTE TYPES AND AMOUNTS: This unit received demolition rubble from the 182-F Pumping Station, 183-F Water Treatment Building and Sedimentation Basins, debris from other building demolitions and was covered with fill from adjacent land.

SITE DESCRIPTION: Based upon a visit to the site on 10/04/93, the unit is located on a relatively flat area north of the 183-F Demolition and Inert Waste Landfill. A lower borrow area is located immediately north of the site. Soil in the area is extremely rocky with predominantly cobble-sized rocks. Predominant vegetation at the site includes rabbitbrush, cheatgrass, and russian thistle. The only evidence of the 182-F Reservoir that was found is the road leading to the south entrance of the facility.

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4.0 200 AGGREGATE AREA OPERABLE UNITS

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200-BP-11

Waste Units Assigned to this Operable Unit

2025-E	Test Treatment or Support Facility

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OPERABLE UNIT: 200-BP-11
TSD: T-2-8
UNIT STATUS: Inactive
START DATE: 06-30-94

UNIT NAME: 2025-E
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Mixed Waste

COORDINATES: N46015/W46332

WASTE TYPES AND AMOUNTS: The unit will treat waste water containing very small concentrations of volatile and nonvolatile substances. Volatile substances consist of organic compounds, ammonia, and radionuclides. Nonvolatile substances consist of organic compounds, inorganic salts, and radionuclides.

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200-IU-5

Waste Units Assigned to this Operable Unit

616-WS-1	French Drain
6607-5	Septic Tank

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UNIT NAME: 616-WS-1
UNIT TYPE: French Drain
WASTE CATEGORY: Nonhazardous/Nonradioactive

OPERABLE UNIT: 200-IU-5
SWMU: No
UNIT STATUS: Active

COORDINATES: N40950/W62865

SITE DESCRIPTION: French Drain for liquid collection from the east and north loading pads. The contents of these trenches will be released to ground pending rain water levels. The unit receives liquid collection from the east and north loading pads of the 616 Facility. It is a 2'6" dia perforated concrete pipe located 6 ft below ground level and is backfilled to ground level. This unit services both the north and east loading dock trenches. The loading and unloading areas are provided with a sloped, curbed and plugged drainage trench. All liquid accumulations including precipitation are sampled: liquids with chemical concentrations above Ecology guidelines for unconditional release to the environment are recovered, processed, and shipped as EHW or DW; liquids with chemical concentrations below the Ecology guidelines are released to this unit (which is 150-300 ft above groundwater).

KNOWN RELEASES: Release information located in facility log book.

UNIT NAME: 6607-5
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

OPERABLE UNIT: 200-IU-5
SWMU: No
UNIT STATUS: Active
START DATE: September 1986

COORDINATES: N40800/W62900

WASTE TYPES AND AMOUNTS: The unit receives sanitary wastes from personnel areas, i.e., kitchen, bathroom, and showers.

SITE DESCRIPTION: The unit consists of a 1000-gal septic tank and a 40 ft by 60 ft drain field.

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200-PO-2

Waste Units Assigned to this Operable Unit

2607-EE Septic Tank

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UNIT NAME: 2607-EE
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

OPERABLE UNIT: 200-PO-2
SWMU: No
UNIT STATUS: Inactive

COORDINATES: N39955/W47849

WASTE TYPES AND AMOUNTS: Sanitary wastewater and sewage. The source area is in a potentially contaminated zone; therefore, the waste has the potential of being contaminated.

SITE DESCRIPTION: The unit includes a drain field.

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200-PO-3

Waste Units Assigned to this Operable Unit

2607-E10	Septic Tank

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OPERABLE UNIT: 200-PO-3
SWMU: No
UNIT STATUS: Active
START DATE: October 1986

UNIT NAME: 2607-E10
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: N40350/W46110, N40350/W46332

WASTE TYPES AND AMOUNTS: Sanitary sewer wastes.

SITE DESCRIPTION: The unit consists of two 1125 gal tanks connected in series and two drain fields. The first drain field starts ~10 ft west of the second tank, and extends ~90 ft west. The second drain field starts ~20 ft west of the first drain field, and extends ~80 ft west. The second tank contains a discharge pump and gate valves to allow discharge to either drain field. The unit is underground except for tank access risers and two monitoring ports that extend ~6 in. above ground, and the perimeter barricade fence.

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200-PO-5

Waste Units Assigned to this Operable Unit

207-A-NORTH	Retention Basin
207-A-SOUTH	Retention Basin
2607-E12	Septic Tank

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OPERABLE UNIT: 200-PO-5
UNIT NAME: 207-A-NORTH
SWMU: Yes
UNIT TYPE: Retention Basin
UNIT STATUS: Active
WASTE CATEGORY: Nonhazardous/Nonradioactive
START DATE: March 1977

COORDINATES: N41220/W46890, N41220/W47105, N41060/W46890, N41060/W47105

WASTE TYPES AND AMOUNTS: The unit has been receiving steam condensate from the 242-A Evaporator (intermittently when evaporator is used) that is sent to the three basins and then is transferred to 216-A-25 Ponds.

SITE DESCRIPTION: The unit contains 3 rubber-lined basins; each one is 55 ft long, 10 ft wide at the bottom, and 7 ft deep, with an operating capacity of 54,370 gal. Each basin contains a 16,000-ft-sq Hypalon liner.

OPERABLE UNIT: 200-PO-5
UNIT NAME: 207-A-SOUTH
TSD: S-2-7
UNIT TYPE: Retention Basin
UNIT STATUS: Inactive
WASTE CATEGORY: Hazardous Waste
START DATE: March 1977
END DATE: April 12, 1989

COORDINATES: N40900/W47105, N40900/W46890, N41060/W47105, N41060/W46890

WASTE TYPES AND AMOUNTS: The unit was used for the interim storage of the 242-A Evaporator process condensate to allow for sampling and analysis before the condensate was discharged to the 216-A-37-1 Crib for final disposition.

SITE DESCRIPTION: The unit contains 3 rubber-lined basins; each one is 55 ft long, 10 ft wide at the bottom, and 7 ft deep, with an operating capacity of 54,370 gal. Each basin contains a 16,000-ft-sq Hypalon liner.

UNIT NAME: 2607-E12
UNIT TYPE: Septic Tank
WASTE CATEGORY: Nonhazardous/Nonradioactive

OPERABLE UNIT: 200-PO-5
SWMU: No
UNIT STATUS: Active

COORDINATES: N40982/W47240, N40935/W47235

WASTE TYPES AND AMOUNTS: Characteristics of the sanitary waste water from the 200 Areas are considered to be similar to residential sanitary waste. There are no known process or radioactive waste streams entering the sanitary waste system.

SITE DESCRIPTION: The old septic tank is constructed with reinforced concrete and has a volume of 5000 gal. The old drainfield has been plugged off. The new tank is a 10,000-gal fiberglass-reinforced plastic septic tank. The new drainfield is located 400 ft east of the septic tank and has a flow capacity of 2998 gal/day with a trench-type drainfield.

200-RO-3

Waste Units Assigned to this Operable Unit

219-S-TK-101 Storage Tank

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UNIT NAME: 219-S-TK-101
UNIT TYPE: Storage Tank
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-RO-3
TSD: TS-2-1
UNIT STATUS: Active
START DATE: June 1, 1951

COORDINATES: N34314.33/W73568.66

WASTE TYPES AND AMOUNTS: The unit receives mixed waste from the 222-S Analytical Laboratory Building. The waste is stored in tanks 101 and 103, then transferred to tank 102 for treatment with sodium hydroxide. Treated waste is sent to the double-shell tank farm for storage.

SITE DESCRIPTION: The unit consists of a 4000 gal stainless steel tank located, with tanks 102 (stainless steel, 4000 gal) and 103 (stainless steel, 1500 gal), in a below-ground concrete vault at the 219-S Waste Handling Facility.

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200-RO-4

Waste Units Assigned to this Operable Unit

241-SX-A	Valve Pit
241-SX-B	Valve Pit

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UNIT NAME: 241-SX-A
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-RO-4
SWMU: Yes
UNIT STATUS: Active
START DATE: 1954

COORDINATES: N35491/W75726.5

WASTE TYPES AND AMOUNTS: The unit is used to transport radioactive waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. Multiple transfer pipelines connect each of these facilities with processing plants and storage tanks.

UNIT NAME: 241-SX-B
UNIT TYPE: Valve Pit
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-RO-4
SWMU: Yes
UNIT STATUS: Active
START DATE: 1954

COORDINATES: N35491/W75705.5

WASTE TYPES AND AMOUNTS: The unit is used to transport radioactive waste solutions from processing and decontamination operations. Quantities are variable according to specific plant operation.

RELEASE POTENTIAL: Diversion boxes and receiving vaults drain to catch tanks or single-shell tanks. They are designed to contain leaks from transfers and drainage from operations within the unit. Multiple transfer pipelines connect each of these facilities with processing plants and storage tanks.

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200-SO-1

Other Waste Units Located Within the Operable Unit Area

241-C-154 Diversion Box

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UNIT NAME: 241-C-154
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

COORDINATES: N42175/W50140

OPERABLE UNIT: 200-SO-1
TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1946
END DATE: July 1985

WASTE TYPES AND AMOUNTS: This unit was used for transfer of radioactive waste solutions from processing and decontamination operations.

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200-SS-1

Waste Units Assigned to this Operable Unit

2607-E11 Septic Tank

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		OPERABLE UNIT:	200-SS-1
UNIT NAME:	2607-E11	**SWMU:**	No
UNIT TYPE:	Septic Tank	**UNIT STATUS:**	Active
WASTE CATEGORY:	Nonhazardous/Nonradioactive	**START DATE:**	1986

COORDINATES: N40823/W51024

WASTE TYPES AND AMOUNTS: Sanitary sewer wastes.

SITE DESCRIPTION: The unit consist of a Tile Field that is ~40 ft wide and 85 ft long and a septic tank that is a two-chamber, 2250-gal tank.

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200-TP-2

Waste Units Assigned to this Operable Unit

241-TX-302BR	Catch Tank

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UNIT NAME: 241-TX-302BR
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-TP-2
SWMU: Yes
UNIT STATUS: Inactive
START DATE: Early 1950's
END DATE: 12/04/84

COORDINATES: N41474/W74754

WASTE TYPES AND AMOUNTS: The unit was used for transfer of waste solutions from processing and decontamination operations. Solids volume estimated at 1090 gal. Liquid volume estimated at 50 gal.

SITE DESCRIPTION: The unit is a horizontal cylindrical tank, ~32.8 ft long by 8 ft in diameter between rounded ends (nominal capacity is 12,000 gal).

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200-TP-5

Waste Units Assigned to this Operable Unit

241-TXR-151	Diversion Box
244-TXR	Receiving Vault

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UNIT NAME: 241-TXR-151
UNIT TYPE: Diversion Box
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-TP-5
TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1949
END DATE: December 1980

COORDINATES: N41473/W75685

WASTE TYPES AND AMOUNTS: This unit was used for transfer of radioactive waste solutions from processing and decontamination operations. Contamination in the diversion box is estimated to be high in alpha, beta and gamma radiation.

SITE DESCRIPTION: The unit is a reinforced concrete structure 54 ft long by 13 ft wide by 15 ft high. All nozzles are 3-in. and 4-in. Redox style.

UNIT NAME: 244-TXR
UNIT TYPE: Receiving Vault
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-TP-5
TSD: S-2-4
UNIT STATUS: Inactive
START DATE: 1950
END DATE: 1957

COORDINATES: N41475/W75795

WASTE TYPES AND AMOUNTS: The unit received waste uranium slurry at temperatures averaging 110 deg F.; specific gravity, 1.26; radioactivity, 1.72 uCi/gal. The vault (total) contains 110 gal of supernate and 11,825 gal of sludge.

SITE DESCRIPTION: The unit is a reinforced concrete pit containing 3 upright, single-shell cylindrical tanks with dished bottoms. TK-TXR-001 is 20 ft by 20 ft dia (50,000 gal). TK-TXR-002 and -003 are 12 ft by 14 ft dia (15,000 gal).

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200-TP-5

Other Waste Units Located Within the Operable Unit Area

241-TX-302X	Catch Tank

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UNIT NAME: 241-TX-302X
UNIT TYPE: Catch Tank
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-TP-5
TSD: S-2-4
UNIT STATUS: Inactive
END DATE: June 1985

COORDINATES: N41623/W75679

WASTE TYPES AND AMOUNTS: This unit used for transfer of waste solutions from processing and decontamination operations. Solids volume estimated at 110 gal. Liquid volume estimated at 250 gal.

SITE DESCRIPTION: The unit is a horizontal, cylindrical tank, 32.4 ft long by 9 ft in diameter between rounded ends (nominal capacity is 14,314 gal).

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200-UP-2

__Waste Units Assigned to this Operable Unit__

200-W-5	Burial Ground
270-W	Neutralization Tank
2607-WC	Septic Tank

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UNIT NAME: 200-W-5
UNIT TYPE: Burial Ground
WASTE CATEGORY: Low-Level Waste

OPERABLE UNIT: 200-UP-2
SWMU: Yes
UNIT STATUS: Inactive

COORDINATES: N38000/W72400

WASTE TYPES AND AMOUNTS: Contaminated coveralls and soil.

CLEANUP ACTIONS: Approx 3 m (10 ft) of clean dirt was placed over contaminated area in ~1950. Contaminated material was removed (probably ~1970) and the area is no longer classified as a radiation zone.

UNIT NAME: 270-W
UNIT TYPE: Neutralization Tank
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 200-UP-2
SWMU: Yes
UNIT STATUS: Inactive
START DATE: 1952
END DATE: 1960

COORDINATES: N38042.5/W73100

WASTE TYPES AND AMOUNTS: The unit was filled with limestone and used to neutralize acidic 224-U process condensate flows when the UO3 plant was in operation. Contributors to the process condensate included feed UNH concentrator offgas, calciner offgas, phosphoric acid, and potassium hydroxide. Analyses of process condensate samples have revealed trace amounts of hydrogen fluoride, mercury, acetone, 1-butanol, 2-butanone, and n-nitrosodimethylamine. Analysis of the last liquid to flow through the tank revealed beta emitters, uranium, and plutonium.

SITE DESCRIPTION: The unit consists of a stainless steel tank 9 ft by 9 ft in dia. Nominal capacity of the tank is 3,780 gal.

OPERABLE UNIT: 200-UP-2
UNIT NAME: 2607-WC
SWMU: No
UNIT TYPE: Septic Tank
UNIT STATUS: Active
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: N36510/W76070

WASTE TYPES AND AMOUNTS: Characteristics of the sanitary waste water from the 200 Areas are considered to be similar to residential sanitary waste. There are no known process or radioactive waste streams entering the sanitary waste system.

SITE DESCRIPTION: The unit is constructed of reinforced concrete. Total tank volume is 4000 gal that includes two 1500-gal tanks and one 1000-gal tank. Drain field flow capacity is 697 gal/day (GPD) with a trench-type drain field.

200-ZP-3

Waste Units Assigned to this Operable Unit

2607-WL	Septic Tank

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OPERABLE UNIT: 200-ZP-3
UNIT NAME: 2607-WL
SWMU: No
UNIT TYPE: Septic Tank
UNIT STATUS: Active
WASTE CATEGORY: Nonhazardous/Nonradioactive

COORDINATES: N40690/W78750

WASTE TYPES AND AMOUNTS: This system is located near a posted radiation zone and therefore has the possibility of radiological contamination.

SITE DESCRIPTION: Septic tank constructed with reinforced concrete. Total tank volume is 4000 gal which includes two 1500-gal tanks and one 1000-gal tank. Drain field flow capacity is 697 gal/day (GPD) with a trench-type drainfield. Estimated current daily input is 1260 GPD and 1625 GPD planned for.

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200-ZP-3

Other Waste Units Located Within the Operable Unit Area

213-W	Test Treatment or Support Facility
213-W-TK-1	Storage Tank

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UNIT NAME: 213-W
UNIT TYPE: Test Treatment or Support Facility
WASTE CATEGORY: Low-Level Waste

OPERABLE UNIT: 200-ZP-3
SWMU: Yes
UNIT STATUS: Active

COORDINATES: N40607.67/W78722.33

WASTE TYPES AND AMOUNTS: low-level dry waste.

SITE DESCRIPTION: The unit is a 853-sq-ft, pre-engineered, self-framing structure located at the western end of the 200 West Area, in the 200 West Burial Ground of the Hanford Site. The compactor facility and the new 200 West Operations Support Facility were built concurrently. This facility is used for reduction of low-level radioactive dry waste. The waste is compacted into B-25 steel boxes for shipment to the burial grounds.

UNIT NAME: 213-W-TK-1
UNIT TYPE: Storage Tank
WASTE CATEGORY: Not Assigned

OPERABLE UNIT: 200-ZP-3
SWMU: Yes
UNIT STATUS: Active
START DATE: 1985

COORDINATES: N40608.67/W78705.08

WASTE TYPES AND AMOUNTS: The unit is used to collect drainage water from 272-WA service garages and also collects drainage from the compactor room floor, and condensate from the HEPA filter system. The unit has the possibility of containing radioactive wastes in the event that liquids are introduced into the process. The water is analyzed periodically for radioactive materials. After the liquids are analyzed, the water is released only if no radioactive materials are present.

SITE DESCRIPTION: The unit is 7 ft in dia., and 6'6" in depth. It has a capacity of 1875 gal.

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OPERABLE UNIT: 300-FF-3
UNIT NAME: 309-WS-1 **SWMU:** Yes
UNIT TYPE: Equipment **UNIT STATUS:** Inactive
WASTE CATEGORY: Mixed Waste **START DATE:** November 1963
END DATE: 1969

COORDINATES: N53680 E15320

WASTE TYPES AND AMOUNTS: The ion exchange columns were used to remove contaminants from heavy water coolant and shield cooling systems. The site may contain any or all of the following exchangers: IX-2 (Reflector Loop Cleanup), IX-3 (Moderator Loop Cleanup), IX-1 (Primary Loop Cleanup), IX-4 (Top and Bottom Shield Cooling Loop) pre-1966, and BIX-5 (Boron Removal Exchanger) post-1966. The dimensions range from 1.5 ft to 2.5 ft dia., by 8 ft to 10 ft long. The volumes range from 7.9 cu ft to 22 cu ft. Anion resins (strong basic quartenary ammonium compound converted to hydroxide form) and cation resins (highly acidic sulfonic acid type converted to hydrogen form) were used, including Amberlite XE-77 and XE-78. The columns were welded in place. Some columns were changed out in the 1960's; the old ones, containing their resins, were dropped into the metal pit below. Between 2 and 7 still remain in the lower level.

SITE DESCRIPTION: The site consists of an underground vault and the ion exchange columns inside. The vault consists of 2 stories, the upper level housing the ion exchange columns which are positioned vertically, and the lower level for spent ion exchange columns. The upper level is constructed of reinforced concrete, 19 ft square and 18 ft deep with 2-ft thick walls and floor. There are two 2'10" dia holes with concrete plugs in the floor for access to the lower level. Three layers of concrete cover blocks, totalling 6 ft thick, are fitted in a step-configuration at grade level. The lower level is constructed of 1'3" thick structural concrete measuring 15.5 ft I.D. by 22 ft deep, on a 20 ft dia octagonal concrete base. There are 8 in. of gravel on the floor of the lower level.

CLEANUP ACTIONS: IX-4 was relocated to A-cell (inside containment) around 1965, then removed and disposed of during the 1980's SP-100 cleanup. It is reported that the other four exchangers were drained in 1986 for the SP-100 cleanout. Approximately 30 gallons of a clear, slightly radioactive liquid was obtained.

RELEASE POTENTIAL: Contaminants are bound to ion exchange resins inside column, there may be trapped particles as well. Columns are located in lower level, for which actual integrity is not known. It is believed that the corrugated metal probably has rotted out.

UNIT NAME: 309-WS-2
UNIT TYPE: Equipment
WASTE CATEGORY: Mixed Waste

OPERABLE UNIT: 300-FF-3
SWMU: Yes
UNIT STATUS: Inactive
START DATE: November 1963
END DATE: 1969

COORDINATES: N53720 E15251

WASTE TYPES AND AMOUNTS: The ion exchange columns were used to remove contaminants and fission fragments from light water coolant. There are reportedly 4 ion exchange columns still in the vault. Three columns are 2'4" I.D. by 8-ft long, with a capacity of 27 cu ft. RLIX-1 was a Cation exchanger, RLIX-2 was a Mixed Bed exchanger, and RLIX-3 was a Deoxygenator. The fourth column, the boron exchanger, was added in 1968. This column is 1'6" O.D. by 6'3" long.

SITE DESCRIPTION: The site consists of an underground vault and the ion exchange columns inside. The vault is constructed of reinforced concrete with 1-ft thick walls and floor, not lined. The vault is fitted with 4-ft thick concrete cover blocks and is sectioned into five bays: four bays for ion exchange columns, and one bay with 1-inch steel plating on the floor and a drain. The drain line from this pit goes to a sump in the corner of Room 20 of the 309 building. The sump is currently dry. It is assumed that the exchangers have drained. A rain cover is installed over the top to prevent rainwater from entering the vault.

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